

CLAIMS

1.           A switch integrated type housing comprising:  
              a housing body provided with a plurality of  
              concave sections on an outer surface of said housing  
5   body;  
              a switch button sheet provided on said outer  
              surface of said housing body to cover said plurality  
              of concave sections;  
              a conductor having a dome shape downwardly  
10   projecting and provided in each of said plurality of  
              concave sections to contact said switch button sheet;  
              and  
              a cover sheet provided between said switch  
              button sheet and said outer surface of said housing  
15   body in a portion of said outer surface of said  
              housing body other than said plurality of concave  
              sections to cover a lower surface of said conductor in  
              each of said plurality of concave sections.
- 20   2.           The switch integrated type housing according  
              to claim 1, further comprising:  
              a switch button arranged on said switch cover  
              sheet above said conductor.
- 25   3.           The switch integrated type housing according  
              to claim 2, further comprising:  
              a top plate provided on said switch button

sheet to cover a periphery of said switch button.

4. The switch integrated type housing according to claim 1, wherein said housing body has a projection  
5 in a center of each of said plurality of concave sections.

5. The switch integrated type housing according to claim 4, wherein said projection contacts said  
10 cover sheet.

6. The switch integrated type housing according to claim 4, wherein a difference between a center of said conductor and the central axis of said projection  
15 is within 2.5% of a diameter of said projection.

7. The switch integrated type housing according to claim 6, wherein said difference is within 1.25% of the diameter of said projection.

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8. The switch integrated type housing according to claim 4, wherein a difference between a center of said conductor and the central axis of said projection is within 0.05 mm.

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9. The switch integrated type housing according to claim 1, wherein said switch button sheet

comprises:

a first electrode provided on a lower surface of said switch button sheet apart from said conductor; and

5 a second electrode provided on the lower surface of said switch button sheet to connect with an end of said conductor,

wherein when said switch button sheet corresponding to said concave section is pushed, said  
10 conductor contacts said first electrode.

10. The switch integrated type housing according to claim 9, wherein said second electrode is provided on said lower surface of said switch button sheet to  
15 surround said first electrode.

11. The switch integrated type housing according to claim 9, wherein said switch button sheet further comprises:

20 a first wiring line pattern connected with said first electrode; and

a second wiring line pattern connected with said second electrode.

25 12. The switch integrated type housing according to claim 11, wherein said first and second wiring line patterns are embedded in said switch button sheet.

13. The switch integrated type housing according to claim 9, wherein said switch button sheet has an extending portion and a blanked portion which has an arc shape to surround said first and second  
5 electrodes.

14. The switch integrated type housing according to claim 13, further comprising:

a top plate provided on said switch button  
10 sheet to cover a periphery of a portion corresponding to said concave section,

wherein said blanked portion is covered by said top plate.

15 15. The switch integrated type housing according to claim 1, wherein said housing body comprises:

a first electrode provided in a center of said concave section to penetrate said housing body;  
and

20 a second electrode provided near to said first electrode apart from said first electrode to penetrate said housing body,

wherein said cover sheet has a first opening for said first electrode and a second opening for said  
25 second electrode, and

said first electrode contacts with said conductor and said second electrode is apart from said

conductor, and contacts with said conductor when a portion of said switch button sheet corresponding to said concave section is pushed.

5 16. The switch integrated type housing according to claim 15, wherein a difference between a center of said conductor and the central axis of said first electrode is within 2.5% of a diameter of said projection.

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17. The switch integrated type housing according to claim 16, wherein said difference is within 1.25% of the diameter of said projection.

15 18. The switch integrated type housing according to claim 15, wherein a difference between a center of said conductor and the central axis of said first electrode is within 0.05 mm.

20 19. The switch integrated type housing according to claim 15, wherein said cover sheet has an opening in a center of said conductor, and  
said conductor has a projection to pass through said opening to extend downwardly.

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20. The switch integrated type housing according to any of claims 1 to 19, said housing body has a box

shape, and a printed circuit board on which electronic parts are mounted is accommodated in said housing body.

- 5 21. An electronic equipment which has said switch integrated type housing according to any of claims 1 to 19.